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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,228	07/24/2003	Brian L. Smith	5681-03800	1283

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EXAMINER

TSE, YOUNG TOI

ART UNIT PAPER NUMBER

2611

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,228

Applicant(s)

SMITH ETAL.

Examiner

YOUNG T. TSE

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20060112.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because the block pertaining elements (102, 104, 120, 150 and 110A to 110D) in figure 1 and (120, 150, 110A and 110B) in Figure 3 need to have descriptive labels in conformance with 37 CFR 1.84(n) and 1.84(o). For example, a descriptive label of "Source Device" should be inserted into figure 1 to properly describe element (102). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: at page 6 (line 24) and page 7 (lines 3, 5 and 8), "repeater 150" should be "retimer 150"; at page 8, line 8, "DLL-1 470" should be "DLL-2 471". Appropriate correction is required.

Claim Objections

3. Claims 1-23 are objected to because of the following informalities:

In claim 1, lines 3 and 5, "source synchronous data" should be "the source synchronous data". See the preamble.

The dependent claims 2-8 are objected to because they are either directly or indirectly depended upon the independent claim 1.

In claim 10, line 3, "said data signal" should be "said first data signal".

The dependent claims 11-18 are objected to because they are either directly or indirectly depended upon the independent claim 10.

In claim 19, lines 2-3, "a first data" should be "a first data signal" to avoid the lacking of antecedent basis of "said first data signal" as recited in claims 22 and 23; lines 7 and 18, "source synchronous data" should be "said source synchronous data"; line 14, "said first data" should be "said first data signal"; and line 16, "said latched first data" should be "said latched first data signal".

The dependent claims 20-22 are objected to because they are either directly or indirectly depended upon the independent claim 19.

In claim 23, line1, "further comprising" should be "wherein said circuitry further comprises".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The configuration of claims 1-23 does not correspond to the disclosure of the drawings. For example, claim 1 recites a repeater as shown in figure 4 comprising circuitry coupled to a first interface and is configured to utilize a second clock signal (459) to latch a first data (452 or 455), wherein the second clock (459) is derived from a reference clock (454 or 457) and a first clock (802). However, as shown in Figure 4, the second clock (459) is not derived from a reference clock (454 or 457) and a first clock (802) as recited in claim 1. Also see the independent claims 10 and 19 for the same reasons described in claim 1.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 10, it is unclear how to generate a third clock. In other words, the generation of the third clock lacks connection or cooperation with any of the claimed elements. Also see claim 10 (lines 6-7) and claim 19 (line 13).

The dependent claims 2-9 are rejected to because they are either directly or indirectly depended upon the independent claim 1.

The dependent claims 11-18 are rejected to because they are either directly or indirectly depended upon the independent claim 10.

The dependent claims 20-23 are rejected to because they are either directly or indirectly depended upon the independent claim 19.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4, 10-13 and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Tang et al. U. S. Publication No. 2002/0075981 A1 (hereinafter "Tang").

Tang discloses a retimer circuit in figure for receiving a received data and clock from a transmitter interface and transmitting a transmitted data to a receiver interface of digital subsystems 1 and 2 as shown in figure 1 of a synchronous system.

With respect to claims 1, 10 and 19, the retimer circuit comprises circuitry which is configured to utilize a reference clock signal (local reference) and a first clock signal (output from the phase shifter 716) to generate a second clock signal (output of VCO 705); utilize said second clock signal to latch a first data (received data); generate a third clock signal (output of the phase shifter 710); and utilize said third clock signal to transmit said latched first data (decision circuit 709).

With respect to claims 2, 11 and 20, clearly, the circuitry is configured to generate the third clock signal in phase with the first clock signal.

With respect to claims 3, 12 and 21, clearly, the circuitry comprises a first circuit (PLL 702) configured to: receive the first clock signal; receive said reference clock signal; and generate the second clock signal to be approximately ninety degrees out of phase with the first clock signal (caused by the phase shifter 716).

With respect to claims 4 and 13, the first circuit is selected from a phase locked loop.

Conclusion

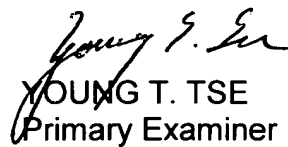
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Martin et al. discloses a frequency control unit has an input to

receive a digital downstream strobe signal and an output to provide a control delay to the strobe signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


YOUNG T. TSE
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Art Unit 2611